8/7/2003

02252-03 He/se

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Condenser

Abstract

The present invention relates to a condenser for an air-based climate control system, having an inlet and an outlet for the air to be cooled, an inlet and an outlet for the cool air, a heat exchange unit for heat transfer between the air to be cooled and the cool air, a bypass that circumvents the cool-air side of the heat exchange unit at least within a certain area, and a hot-air inlet on the cool-air side by means of which hot air can be fed into the condenser. A particularly low humidity even in partial power operation with continued high flow-through capacity of the climate control system is achieved according to the invention in that the hot-air inlet is positioned in such a way that the hot air essentially flows in a partial area of the inlet on the cool-air side of the condenser and that the bypass inlet is positioned in the partial area downstream from the hot-air inlet.

The present invention further relates to an air-based climate control system, especially for aircraft, having at least one turbine for decompression and cooling of the air to be fed into the passenger cabin and having a condenser with a heat exchange unit, the inlet on the cool-air side of which is connected with the turbine outlet, and having an admixture conduit by means of which hot air can be mixed into the air to be fed into the passenger cabin, with the admixture conduit feeding in downstream of the inlet on the cool-air side of the heat exchange unit.